

## LABORATORY REPORT

Prepared For: Burns & McDonnell  
9400 Ward Parkway  
Kansas City, MO 64114  
Attention: Diana Marquez

Project: 62589

Sampled: 11/05/12-11/06/12

Received: 11/07/12

Issued: 11/16/12 12:24

NELAP #01109CA / AZ100001 California ELAP#2446 Arizona DHS#AZ0728 Nevada #AZ01030 ORELAP #AZ100001

*The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain of Custody, 1 page, is included and is an integral part of this report.*

*This entire report was reviewed and approved for release.*

## CASE NARRATIVE

### LABORATORY ID

PVK0459-01

PVK0459-02

### CLIENT ID

DP134W01/22-26

DP140W06/67-71

### MATRIX

Water

Water

**SAMPLE RECEIPT:** Samples were received intact, at 1°C, on ice and with chain of custody documentation.

**HOLDING TIMES:** All samples were analyzed within prescribed holding times and/or in accordance with the TestAmerica Sample Acceptance Policy unless otherwise noted in the report.

**PRESERVATION:** Samples requiring preservation were verified prior to sample analysis.

**QA/QC CRITERIA:** All analyses met method criteria, except as noted in the report with data qualifiers.

**COMMENTS:** Results that fall between the MDL and RL are 'J' flagged.

**SUBCONTRACTED:** No analyses were subcontracted to an outside laboratory.

Reviewed By:



**TestAmerica Phoenix**

Linda Eshelman  
Project Manager

Burns & McDonnell  
9400 Ward Parkway  
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## 1,4-DIOXANE BY GC/MS (EPA 3520C/8270C MOD)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: PVK0459-01 (DP134W01/22-26 - Water)</b>					<b>Sampled: 11/05/12</b>				
Reporting Units: ug/l									
1,4-Dioxane	EPA 8270C	12K0401	0.51	1.0	ND	1.08	11/09/12	11/14/12	E8
Surrogate: 1,4-Dioxane-d8 (14-125%)					28 %				
Surrogate: Nitrobenzene-d5 (27-143%)					75 %				
<b>Sample ID: PVK0459-02 (DP140W06/67-71 - Water)</b>					<b>Sampled: 11/06/12</b>				
Reporting Units: ug/l									
1,4-Dioxane	EPA 8270C	12K0401	0.51	1.0	0.79	1.06	11/09/12	11/13/12	E4
Surrogate: 1,4-Dioxane-d8 (14-125%)					39 %				
Surrogate: Nitrobenzene-d5 (27-143%)					85 %				

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Project Manager

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## METHOD BLANK/QC DATA

### 1,4-DIOXANE BY GC/MS (EPA 3520C/8270C MOD)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 12K0401 Extracted: 11/09/12</b>											
<b>Blank Analyzed: 11/13/2012 (12K0401-BLK1)</b>											
1,4-Dioxane	ND	1.0	0.51	ug/l							
Surrogate: 1,4-Dioxane-d8	7.64			ug/l	20.0		38	14-125			
Surrogate: Nitrobenzene-d5	17.1			ug/l	20.0		86	27-143			
<b>LCS Analyzed: 11/13/2012 (12K0401-BS1)</b>											
1,4-Dioxane	22.3	1.0	0.51	ug/l	20.0		112	85-116			
Surrogate: 1,4-Dioxane-d8	8.02			ug/l	20.0		40	23-132			
Surrogate: Nitrobenzene-d5	17.4			ug/l	20.0		87	28-150			
<b>LCS Dup Analyzed: 11/13/2012 (12K0401-BSD1)</b>											
1,4-Dioxane	21.8	1.0	0.51	ug/l	20.0		109	85-116	2	20	
Surrogate: 1,4-Dioxane-d8	6.99			ug/l	20.0		35	23-132			
Surrogate: Nitrobenzene-d5	16.0			ug/l	20.0		80	28-150			
<b>Matrix Spike Analyzed: 11/13/2012 (12K0401-MS1)</b>											
						<b>Source: PVK0459-02</b>					
1,4-Dioxane	23.8	1.0	0.51	ug/l	21.5	0.787	107	65-138			
Surrogate: 1,4-Dioxane-d8	8.71			ug/l	21.5		40	14-125			
Surrogate: Nitrobenzene-d5	19.1			ug/l	21.5		89	27-143			
<b>Matrix Spike Dup Analyzed: 11/13/2012 (12K0401-MSD1)</b>											
						<b>Source: PVK0459-02</b>					
1,4-Dioxane	23.5	1.0	0.51	ug/l	21.5	0.787	105	65-138	1	20	
Surrogate: 1,4-Dioxane-d8	7.19			ug/l	21.5		33	14-125			
Surrogate: Nitrobenzene-d5	17.7			ug/l	21.5		82	27-143			

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Project Manager

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## DATA QUALIFIERS AND DEFINITIONS

<b>E4</b>	Concentration estimated. Analyte was detected below laboratory minimum reporting limit (MRL).
<b>E8</b>	Analyte reported to the MDL per project specification. Target analyte was not detected in the sample.
<b>ND</b>	Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
<b>RPD</b>	Relative Percent Difference

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## CHAIN OF CUSTODY FORM

THE LEADER IN ENVIRONMENTAL TESTING

TAL-0013-550 (10/10)

**M Phoenix - 4625 E. Cotton Center Blvd., Suite 189, Phoenix, AZ 85040 (602) 437-3340 FAX (602) 454-9303**

Tucson - 1870 W. Prince Road, Suite 59, Tucson, AZ 85705 (520) 807-3801 FAX (520) 807-3803

[ ] Las Vegas - 6000 S Eastern Ave., Suite 5E, Las Vegas, NV 89119 (702) 429-1264

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**Note:** By relinquishing samples to TestAmerica, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

by additional analyses performed on  
custody seals

1.4°C